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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,046	09/22/2003	Noriyasu Sakai	14225-023001 / F1030477US	7854
26211	7590	07/17/2006	EXAMINER	
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			CAZAN, LIVIUS RADU	
			ART UNIT	PAPER NUMBER
			3729	

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/667,046	<b>Applicant(s)</b> SAKAI ET AL.	
	<b>Examiner</b> Livius R. Cazan	<b>Art Unit</b> 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 4-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/27/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1-3 in the reply filed on 4/27/2006 is acknowledged.
2. Claims 4-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/27/2006.

### ***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

4. The disclosure is objected to because of the following informalities:
  - On page 5, line 4, "side face" should read --a side face-- or --the side face--
  - On page 13, lines 13 and 14, the phrase "The insulating resin 13 that is exposed from the rear surface of insulating resin 13" needs clarification.
  - On page 14, line 14, "in an even" should read --an even--.
  - On page 19, line 13, "the Figure" should read --the figure--; likewise on page 22, lines 10 and 18; preferably, a reference to a specific figure should be made so as to remove any possible ambiguity
  - On page 23, line 4, it is unclear what is meant by the phrase "formed to be circular in planar shape"
  - On page 36, line 12, "layer 18" should read --layer 13--

Appropriate correction is required. Applicant should carefully read the specification and correct these and any other informalities that may still be present in the application.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, as claimed, it is unclear it is unclear what is meant by "wherein side face of said insulating resin". In particular, it is unclear where the recited side face is located relative to the other structural elements, or even with respect to the resin, since the shape of the insulating resin is not recited.

Regarding claim 3, it is impossible to determine the structure of the recited "outer peripheral part" and its special/structural relationship to the structure recited in claim 1. Further, the phrase appears to lack proper antecedent basis, since claim 1 does not contain any recitations directed to an outer peripheral part formed of insulating resin.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, as best understood, is rejected under 35 U.S.C. 102(b) as being anticipated by Lin (US5200362 to Lin et al.).

Lin discloses:

- circuit elements (chip die 15 and circuit elements 19 in Figs. 2-7)
- conductive patterns (traces 13 in Figs. 1-8)
- a resin sealing the circuit elements and conductive patterns (22, see col. 3, lines 10-35); see note in the paragraph below regarding laser cutting.

9. Claims 1-3, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by each of Flies (US4578573 to Flies et al.) and Takinishi (US4175338 to Takinishi et al.).

Flies / Takinishi discloses a circuit device comprising:

- Circuit elements (circuit element 32, Fig. 9 of Flies/ sensing electrodes 14, Figs. 3-6 of Takinishi)
- Conductive patterns (paths 24 in Figs. 7 and 9 of Flies / wires 13a and 13b in Figs 3-6 of Takinishi) to which the circuit elements are affixed and forming wiring
- An insulating resin sealing the circuit elements and the conductive patterns (insert body portion 12 in Figs. 1-6 and 9; see col. 4, lns. 45-65 in Flies / see col. 3, ln. 30 to col. 4, ln. 5; in particular col. 3, lns. 35-50 and 60-60 and col. 4, lns. 1-5 in Takinishi), the resin having a rounded part and

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corner parts of an outer peripheral part having an acute or an obtuse angle (see Figs. 1-6 and 9 of Flies / see Figs 3-6 of Takinishi); see note below regarding laser cutting.

Note: The patentability of product does not depend on its method of production. In re Thorpe, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985) (citing In re Pilkington, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969)). If a product in a product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product is made by a different process. *Id.* citing *In re Marosi*, 710 F.2d 799, 803, 218 USPQ 289, 292-93 (Fed. Cir. 1983); *Johnson & Johnson v. W.L. Gore*, 436 F. Supp. 704, 726, 195 USPQ 487, 506 (D. Del. 1977); see also *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974). In this case, the side face of the insulating resin does not have to be cut by a laser, although it is capable of being cut by a laser. Cutting PCBs using a laser is very well known, however (see the "Flexible solutions..." and "Cutting PCB" references).

### **Conclusion**

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: US4674175, US3024151, US20030000993, US5355283, US3164749, US6627981, US6294830, US5528457, US6975024, US6429508, US5832600, US4722765, US6708401, US5319522, and US6107679.

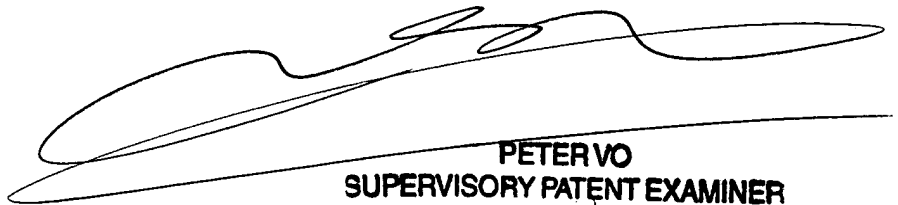
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Livius R. Cazan whose telephone number is (571) 272-8032. The examiner can normally be reached on 7:30AM-4:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571)272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LRC 07/07/2006

A handwritten signature in black ink, appearing to read 'Peter Vo', is written over a horizontal line.

**PETER VO**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**